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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,582	11/13/2001	Fabio M. Chiussi	22-1-10	4341
7590	11/22/2005		EXAMINER	
John A. Caccuro 9 Ladwood Drive Holmdel, NJ 07733			HAN, CLEMENCE S	
			ART UNIT	PAPER NUMBER
			2668	

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/010,582	Applicant(s) CHIUSSI ET AL.	
	Examiner Clemence Han	Art Unit 2668	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,11-16 and 19-21 is/are rejected.
- 7) ☒ Claim(s) 2,3,6-10,17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 5, 11-16 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "said fixed service rate" in the last line. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "said fixed service rate" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitation "the aggregate" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 20 recites the limitation "the timestamp" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 20 recites the limitation "said aggregate" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1, 4 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Cheesman et al. (US 6,680,933).

Regarding to claim 1, Cheesman teaches a scheduling apparatus for servicing a plurality of data packet flows, each of said data packet flows having specified service requirements and being associated with respective one of a plurality of queues 142, each of said plurality of queues containing data packets, the distribution of service to said data packet flows being organized in service frames, each service frame offering a number of service opportunities to each of said data packet flows, said number of service opportunities depending on the service requirements of said data packet flows, the scheduling apparatus comprising: a first scheduler (P in 144a) providing service to a first set of guaranteed-bandwidth data packet flows (A1-Aj in Figure 8) during a first subframe of a service frame (Column 4 Line 36-37), said GB data packet flows

having service requirements expressed in terms of bandwidth requirements, the duration of the first subframe being adjusted to satisfy the bandwidth requirements of said GB data packet flows; and a second scheduler (W in 144a) providing service to a second set of best-effort data packet flows (B1-Bm in Figure 8) during a second subframe of the service frame (Column 4 Line 37-39), said BE data packet flows having service requirements that are not expressed in terms of guaranteed bandwidth requirements, the duration of the second subframe being the duration of the service frame minus the duration of the first subframe in the same service frame (Column 11 Line 26-30).

Regarding to claim 4, Cheesman teaches the second scheduler is a WRR Scheduler (W in 144a).

Regarding to claim 21, Cheesman teaches a method of operating a scheduler for servicing a plurality of data packet flows, each of said data packet flows having specified service requirements and being associated with one of a plurality of queues 142, each of said plurality of queues containing data packets, the distribution of service to said data packet flows being organized in service frames, each service frame offering a number of service opportunities to each of said data packet flows, said number of service opportunities depending on the service requirements of said data packet flows, the method comprising the steps of:

providing service to a first set of guaranteed-bandwidth data packet flows (A1-Aj in Figure 8) during a first subframe of a service frame (Column 4 Line 36-37), said GB data packet flows having service requirements expressed in terms of bandwidth requirements, the duration of the first subframe being adjusted to satisfy the bandwidth requirements of said GB data packet flows; and providing service to a second set of best-effort flows (B1-Bm in Figure 8) during a second subframe of the service frame (Column 4 Line 37-39), said BE data packet flows having service requirements that are not expressed in terms of guaranteed bandwidth requirements, the duration of the second subframe being the duration of the service frame minus the duration of the first subframe in the same service frame (Column 11 Line 26-30).

Allowable Subject Matter

5. Claim 2, 3, 6-10, 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. Claim 5, 11-16, 19 and 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to the invention in general.

U.S. Patent 5,579,302 to Banks

U.S. Patent 5,579,312 to Regache

U.S. Patent 6,014,367 to Joffe

U.S. Patent 6,041,059 to Joffe et al.

U.S. Patent 6,493,317 to Ma

U.S. Patent 6,529,520 to Lee et al.

U.S. Pub. 2002/0097675 to Fowler et al.

U.S. Pub. 2002/0136230 to Dell et al.

U.S. Pub. 2004/0076161 to Lavian et al.


Japan Patent 2002101124 A to Muroto

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is (571) 272-3158. The examiner can normally be reached on Monday-Thursday 7 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. H.
Clemence Han
Examiner
Art Unit 2668



STEVEN NGUYEN
PRIMARY EXAMINER